

IN THE CLAIMS

1-10. (CANCELED)

11. (PREVIOUSLY PRESENTED) A method for propagating information in an electronic lock-and-key system, said method comprising:

inserting an original message to be propagated to an n -th lock or key into a memory of a first key or a first lock, respectively,

copying, on any use of said first key or said first lock, said original message into a memory of a second lock or key, respectively, but remains in said first key's or first lock's, respectively, memory,

copying, on any subsequent use of said first and second key and said first and second lock, said original message into a memory of a next lock or key, respectively, but remains in the memories of said previously used locks and keys, respectively,

propagating said original message until it reaches its destination, and

producing a confirmation message in the n -th lock or key, thereby acknowledging reception of said original message which confirmation message serves to control erasing of the copies of the original message in the memories of the locks and keys.

12. (CANCELLED)

13. (CANCELLED)

14. (PREVIOUSLY PRESENTED) The method for propagating information according to claim 11, further comprising: propagating the confirmation message through the system in the same way as the original message,

when said confirmation message is received by a lock or key whose memory still contains a copy of said original message, erasing said original message.

15. (PREVIOUSLY PRESENTED) The method for propagating information according to claim 11, further comprising: selectively or universally erasing copies of said original message after a selective or universal time-out.

16. (PREVIOUSLY PRESENTED) The method for propagating information according to claim 11, wherein original messages and confirmation messages, especially those concerning the same lock or key, are ordered, in particular sequentially numbered.

17. (PREVIOUSLY PRESENTED) The method for propagating information according to claim 16, further comprising: erasing any message of lower order, in particular with a lower sequence number, in the respective memory when a message of higher order, in particular with a higher sequence number, is received by a lock or key during propagation.

18. (PREVIOUSLY PRESENTED) The method for propagating information according to claim 11, wherein original messages and confirmation messages are fully or partly encrypted, in particular using a shared key encryption scheme and a public key encryption scheme.

19. (CANCELED)

20. (CURRENTLY AMENDED) ~~The storage media of claim 19, further comprising~~
A computer readable program embodied in a storage media including computer readable
program instructions for controlling propagation of information in an electronic lock-and-
key system, said storage media comprising:

computer readable program instructions to store an original message to be propagated to an n-th lock or key in a memory of a first lock;

computer readable program instructions to control when a first key is used with said first lock, said original message is copied into said first key's memory, but remains in said first lock's memory;

computer readable program instructions to control when a first key is used with a second lock, said original message is copied into said second lock's memory, but remains in said first key's memory;

computer readable program instructions to control when a second key is used with said second lock, said original message is copied into said second key's memory, said original message remains in said second lock's memory until said original message is propagated to said n-th lock or key; and

computer readable program instructions to control said n-th lock or key to produce a confirmation message acknowledging reception of said original message, said confirmation message serves to control erasing of the original message in the memories of said locks and keys.

21. (PREVIOUSLY PRESENTED) The storage media of claim 20, further comprising computer readable program instructions to control said confirmation message is propagated through said system the same as said original message.

22. (CANCELED)

23. (CANCELED)

24. (CURRENTLY AMENDED) ~~The storage media of claim 23, further comprising~~
A computer readable program embodied in a storage media including computer readable

program instructions for controlling propagation of information in an electronic lock-and-key system, said storage media comprising:

computer readable program instructions to store an original message to be propagated to an n-th lock or key in a memory of a first lock;

computer readable program instructions to control when a first key is used with said first lock, said original message is copied into said first key's memory, but remains in said first lock's memory;

computer readable program instructions to control when a first key is used with a second lock, said original message is copied into said second lock's memory, but remains in said first key's memory;

computer readable program instructions to control when a second key is used with said second lock, said original message is copied into said second key's memory, said original message remains in said second lock's memory until said original message is propagated to said n-th lock or key;

computer readable program instruction for ordering said original messages and confirmation messages; and

computer readable program instruction for erasing a message of a lower order when a message of higher order is received by said lock or key during propagation.

25. (CURRENTLY AMENDED) ~~The storage media of claim 19, further comprising~~
A computer readable program embodied in a storage media including computer readable program instructions for controlling propagation of information in an electronic lock-and-key system, said storage media comprising:

computer readable program instructions to store an original message to be propagated to an n-th lock or key in a memory of a first lock;

computer readable program instructions to control when a first key is used with said first lock, said original message is copied into said first key's memory, but remains in said first lock's memory;

computer readable program instructions to control when a first key is used with a second lock, said original message is copied into said second lock's memory, but remains in said first key's memory;

computer readable program instructions to control when a second key is used with said second lock, said original message is copied into said second key's memory, said original message remains in said second lock's memory until said original message is propagated to said n-th lock or key; and

computer readable program instruction for encrypting original messages and confirmation messages using an encryption scheme.